

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address; COMMISSIONER FOR PATENTS

Alexandria, Virginia 22313-1450

Me uson evi

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708.129	11/07/2000	David N. Spiegel	END920000101US1	1094
45092 HOFFMAN W	7590 03/20/2007 VARNICK & D'ALESSAN	EXAMINER		
HOFFMAN, WARNICK & D'ALESSANDRO LLC 75 STATE ST			RUTTEN, JAMES D	
14TH FLOOR ALBANY, NY			ART UNIT PAPER NUMBER	
			2192	
SHORTENED STATUTOR	RY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MC	ONTHS	03/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)				
Office Action Summary		09/708,129	SPIEGEL, DAVID) N.			
		Examiner	Art Unit /				
		J. Derek Rutten	2192				
The MAILING DA Period for Reply	TE of this communication ap	pears on the cover she	eet with the correspondence a	ddress			
WHICHEVER IS LONG - Extensions of time may be available after SIX (6) MONTHS from the - If NO period for reply is specified - Failure to reply within the set of	ER, FROM THE MAILING I lable under the provisions of 37 CFR 1. mailing date of this communication. It above, the maximum statutory period extended period for reply will, by statute to later than three months after the mailing	DATE OF THIS COMN 136(a). In no event, however, r I will apply and will expire SIX (6 te, cause the application to become	nay a reply be timely filed NONTHS from the mailing date of this one ABANDONED (35 U.S.C. § 133).				
Status				•			
1) Responsive to cor	nmunication(s) filed on 04.	January 2007.		•			
2a)⊠ This action is FIN.	· · ·	s action is non-final.					
<u>'=</u>							
•	nce with the practice under	·	·				
Disposition of Claims							
4)⊠ Claim(s) <u>1-20</u> is/a	re pending in the application	n.					
•	4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is.	/are allowed.	·					
6)⊠ Claim(s) <u>1-20</u> is/a	6)⊠ Claim(s) 1-20 is/are rejected.						
7) Claim(s) is.	/are objected to.	,					
8) Claim(s) ar	e subject to restriction and/	or election requiremer	t.				
Application Papers			•				
9) The specification is	s objected to by the Examin	er.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.							
Applicant may not re	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declar	ation is objected to by the E	xaminer. Note the atta	ached Office Action or form P	'TO-152.			
Priority under 35 U.S.C. §	119						
12) ☐ Acknowledgment i	s made of a claim for foreig	n priority under 35 U.S	S.C. § 119(a)-(d) or (f).				
a) ☐ All b) ☐ Some							
1. Certified co	pies of the priority documer	nts have been received	!.				
2. Certified co	pies of the priority documer	nts have been received	I in Application No				
3. Copies of the	ne certified copies of the price	ority documents have	been received in this Nationa	ıl Stage			
• • • • • • • • • • • • • • • • • • • •	from the International Burea	, , , , , , , , , , , , , , , , , , , ,					
* See the attached de	etailed Office action for a lis	t of the certified copies	s not received.				
			•				
		·	·				
Attachment(s)			,	•			
1) Notice of References Cited			view Summary (PTO-413)				
	ent Drawing Review (PTO-948)		er No(s)/Mail Date ce of Informal Patent Application				
Information Disclosure State Paper No(s)/Mail Date	-· -·	6) Othe					

DETAILED ACTION

1. This action is responsive to Applicant's amendment filed 1/4/2007, responding to the 10/4/2006 Office action provided in the rejection of claims 1-20. Claims 1, 9 and 17-20 have been amended. Claims 1-20 remain pending in the application and have been fully considered by the examiner.

Response to Amendment/Arguments

- 2. The amendment has obviated the objection to claims 1,9, and 17-19. Therefore, the objection has been withdrawn.
- 3. Applicant's arguments filed 1/4/07 have been fully considered but they are not persuasive. The main thrust of Applicant's arguments are related to the claim limitations at issue in the ongoing rejection of claims 1-19 under 35 U.S.C. § 112 1st paragraph. It is noted that this continues to be a main point of contention which began with the 9/8/05 Office action. Without a persuasive showing of enablement of "a database of all second maintenance items that are known as being able to be installed," any related arguments are essentially moot.
- 4. On pages 11 and 12, Applicant essentially argues in response to the rejection of claim 119 under 35 U.S.C. § 112 1st paragraph, that the claimed limitations of a "database of all second maintenance items that are known as being able to be installed" is "explicitly supported" on page 8 lines 13-22 of the specification (includes a description of "a database of second maintenance items known as PTF's.") as well as implicitly supported by the description of searching for items on page 9 lines 6-9. Applicant further describes the database in terms of it being a "master"

database" with a "global nature." However, no explicit support was found for a database containing information regarding an ability to be installed. Further, there is no indication of any knowledge of all second maintenance items in a master database with a global nature. How would a database acquire the knowledge of all items known as being able to be installed? Would such a database include commercial software, or would it also include free software? Would it include ActiveX components, Java applets, and other web based software? Would it include viruses, spyware, and malware? Would it include all software under the sun ever known to be able to be installed? Such items are all known as being able to be installed. How would this database be maintained to provide all known items in an industry that is extremely dynamic, with new software items large and small being constantly released by countless providers? Even if it were possible to assemble such a database, practically the moment it's created, it would immediately become out of date, and would no longer be a database of all known items since new known items are constantly created. A database of all second maintenance items that are known as being able to be installed, as argued by Applicant, is essentially unworkable. The specification simply does not appear to provide any notion, explicit or implicit, of a master database with a global nature. This issue has been addressed previously, and is it maintained that there is simply no support for a global database of all items that are known as being able to be installed.

Applicant further argues at the top of page 12 that the global nature is exhibited in the definitions of the terms "second maintenance items" (page 8 lines 14-15, "second maintenance items known as PTF's") and "third maintenance items" (page 9 lines 1-2 "[third] maintenance items needed to be put on to the computer system"). Neither "definition" provides a clear

indication or restriction on interpreting what is meant by the respective terms. As such, neither contributes to a "global nature" or a "master database."

- 5. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a database with maintenance items that are known as being able to be installed on the computer system, whether the known second maintenance items are included in a particular upgrade packages or not," i.e. "master database" with a "global nature" see bottom of page 13 through top of page 14) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).
- 6. At the bottom of page 14, Applicant essentially argues that Stupek does not disclose all items known as being able to be installed. However, this is disclosed in column 3 lines 44-52, e.g. "each of the upgrade packages." The word "each" is inclusive and provides a basis for interpreting "all second maintenance items that are known as being able to be installed." Therefore, Applicant's argument is not persuasive.
- 7. On pages 15-16, Applicant argues that Stupek does not disclose searching for "records that have dependency information." However, Stupek discloses notifying users of dependency information. See column 7 lines 33-35. Since notification of dependency occurs, a search for dependency information, while it may not be expressly disclosed, is inherent since notification could not occur without a search for the information. Therefore, Applicant's argument is not persuasive.

Application/Control Number: 09/708,129 Page 5

Art Unit: 2192

8. On page 16, Applicant essentially argues that the Taylor reference does not teach adding dependent packages to an original list of items derived from the first list. However, Stupek discloses a first list and items derived from the first list (see 10/4/06 Office action page 10), and Taylor teaches adding dependency items to an existing list. Further, Taylor teaches a preexisting action list, i.e. first list, to which dependency information is added. See Taylor column 5 lines 29-31:

If there is an action list, add module 112 adds the name of the dependent package to the action list.

Thus, Applicant's argument is not persuasive since Taylor clearly teaches adding dependency information to an initial first list which is disclosed by Stupek.

9. On page 17, Applicant essentially argues that the Stupek reference does not disclose ordering, receiving, and applying *after* other steps. However, as submitted previously (e.g. 9/8/05 page 4 and 4/17/06 page 4), broad interpretation of these limitations read on Stupek column 5 lines 48-63:

When the job is ready to be installed to the target server, the server upgrader connects with the server...and then sends the job...to a staging area. The staging area may...be anywhere else in the network capable of handling the deposit and retrieval of upgrade files....the agent executes the instructions in the control file thereby installing the packages from the package directories 71 to the target network resources 3.

Execution of the instructions in the control file could be broadly interpreted as ordering and retrieving the upgrade files from the package directories in order to apply them to the system. As described in the passage, this necessarily occurs at the end of the process since all packages must be known before they can be installed.

10. On page 17, Applicant essentially argues that Stupek does not disclose "the database is stored on a different medium than the maintenance application" since Stupek discloses that the database is included in the same medium as its resource upgrades. This argument is not

persuasive. Stupek's resource upgrades are not relied upon in the rejection. Figure 1 elements 9 and 11 are interpreted as the database and upgrade advisor, respectively.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claims 1, 9, 17, 18, and 19 all recite the phrase "...database of all second maintenance items that are known as being able to be installed...", e.g. lines 6 and 7 of claim 1. While supporting a database of known second maintenance items (page 8 lines 13-22), the originally filed specification does not expressly support a database containing all known maintenance items known as being able to be installed. There is no description of how any database could possibly contain a list of all items that are known as being able to be installed. What constitutes all items? How is it determined whether something is able to be installed? Who is responsible for *knowing* if an item is able to be installed, and how do they acquire this knowledge? The specification does not appear to answer any of these questions, and one of ordinary skill in the art would not know how to make and/or use the invention. Claims 2-8, 10-16, and 20 are rejected as being dependent upon rejected base claims. For the purpose of further

examination, reasonable broad interpretation is made in accordance with the specification as being directed to a database with all items that are known by a given entity as being able to be installed.

13. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Claim 20 recites: "wherein the database is stored on a different medium than the maintenance application." No description of any storage or medium requirements for either the database or the maintenance application was found in the specification.

Claim Rejections - 35 USC § 103

- 14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 15. Claims 1, 3-9, 11-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent No. 5,960,189 to Stupek et al. (hereinafter "Stupek") in view of prior art of record U.S. Patent 5,721,824 to Taylor (hereinafter "Taylor").

As per claim 1, Stupek discloses:

Application/Control Number: 09/708,129

Art Unit: 2192

A method of maintaining software on a computer system (See Abstract) comprising the steps of:

bringing up first and second host sessions on a computer system (FIG. 1 elements 1 and 2);

starting in said first host session, a software recording application having data on existing first maintenance items that have been previously applied to said computer system See figure 1 reference 5 "Management Information Base", column 3 lines 22-30:

A management information base (MIB) within the server maintains basic descriptive information about each of the resources available on the server.

Resources that are currently available and exist on the server, inherently must have been previously applied, otherwise they would not be available.

starting in said second host session, a database application having a database of all second maintenance items that are known by an entity as being able to be installed on the computer system, and including prerequisite items and corequisite items corresponding to each of said known second maintenance items See figure 1 reference 9 "Upgrade Database", column 3 lines 44-52:

In addition to the resource upgrades 7, the CD-ROM contains an upgrade database 9, which stores information about each of the upgrade packages 6 (e.g., name and location of the package on the CD-ROM, description of the upgrades, and instructions for installation of the package to the server), and the individual upgrade objects 8 within each package 6. If the upgrades 7 are provided by an on-line service, the upgrade database 9 will also be provided by the service.

and column 7 lines 8-10:

The database also contains information regarding the dependencies between the package and other upgrade objects or packages...

Maintenance items must inherently be known if information regarding them is stored in a database. As a database is a collection of knowledge, it would not exist without

knowledge of its members. Stupek also discloses storing information for all known updates by referring to "each of the upgrade packages."

activating a maintenance application on said computer system (figure 1 reference 11 "Upgrade Advisor");

entering a first list of new third maintenance items in said maintenance application See figure 1 reference 7 "Resource Upgrades", column 3 lines 31-43:

Upgrades to the network resources are provided to a server manager by a distribution medium (not shown), such as a CD-ROM. The upgrades 7 may also be provided by an on-line service (not shown), such as a bulletin board service administered by a manufacturer of network resources.

Upgrades inherently provide a new version of a product, otherwise they might be called a "downgrade", or "rollback". Also see column 3 line 57 – column 4 line 5.);

searching said database of known second maintenance items for records matching each of said new third maintenance items to find records that have said prerequisite items and corequisite items, See column 4 lines 20-27:

The upgrade advisor then retrieves upgrade information from the upgrade database and performs two types of comparisons: a) whether or not a particular upgrade package corresponds to a resource on the server, and b) whether or not the version number of the upgrade package matches the version number of the corresponding network resource (i.e, whether or not the upgrade package represents a true upgrade for the existing network resource).

Also column 7 lines 6-35, especially lines 29-33:

Therefore, the dependency information in the Package database 25 describes not only the dependencies between packages on the CD, but also all dependencies between an upgrade package and any upgrade not available on the CD.

Also column 4 lines 6-9:

When the analysis is complete, the **upgrade advisor 11 presents a report** and/or graphical display to the user. This output is in the form of **upgrade recommendations**, each supported by an explanation of the reasons for upgrade.

The first list is analyzed by the upgrade advisor and modified according to the current maintenance needs, producing a report, or list, of prerequisites and corequisites.);

Also see column 7 lines 33-35. Since notification of dependency occurs, a search for dependency information, while not expressly disclosed, is inherent since notification could not occur without a search for the information.

thereafter determining from said software recording application which items on said first list have already been received, and adding those items not received to an order list See column 4 lines 20-27 as cited above describes the determination of items that have already been received; also column 4 lines 45-48:

When the upgrade advisor 11 and/or the user have selected 100 the network resources 3 that need to be upgraded, an upgrade installer 17 oversees the automatic installation of the packages to the server.

A determination of which items have already been received is inherent in the selection of "network resources that need to be upgraded". If a resource does not need to be upgraded, then it must have already been received. Selection of resources is impossible without determination. Also column 5 lines 41-45

In the server upgrader 22, several upgrade packages 7 and the corresponding installation instructions 20 are **grouped 108 into a "job"** 18. Within each job 18, the installation instructions for every package are included in a control file 18a.

Grouping packages into a job is considered adding to an order list.); and

thereafter ordering, receiving, and applying said items on said order list See column 4 lines 45-48 as cited above in addition to column 4 lines 48-53:

At the outset, the appropriate upgrade packages 7 are retrieved 102 from the distribution medium (or the on-line service) and supplied 106 to a server upgrader 22 located in the upgrade installer 17. Installation instructions 20 are retrieved 104 from the database 9 and are supplied 106 to the server upgrader 22.

Also column 5 lines 48-63:

When the job is ready to be installed to the target server, the server upgrader connects with the server...and then sends the job...to a staging area. The staging area may...be anywhere else in the network capable of handling the deposit and retrieval of upgrade files....the agent executes the instructions in the control file thereby installing the packages from the package directories 71 to the target network resources 3.

Stupek column 4 lines 6-9 discloses presenting a list of upgrades to a user:

When the analysis is complete, the upgrade advisor 11 presents a report and/or graphical display to the user.

Stupek takes an original list of available upgrades and analyses it to determine the set of necessary upgrades. A list is then generated to display the results of the analysis. Stupek further describes automatic installation of the displayed list using a Package database that describes any dependencies related to the package in column 7 lines 6-15:

To enable automatic installation of the package, the database contains the package script 25g (the installation instructions for the package). The database also contains information regarding the dependencies between the package and other upgrade objects or packages: child dependencies 25h are the upgrade objects associated with a package; sibling dependencies 25j are the packages upon which a package depends; and parent dependencies 25i are the packages or upgrade objects which together constitute a larger package.

However, Stupek does not expressly disclose "adding said corresponding prerequisite items and corequisite items to said first list." However, in an analogous environment, Taylor teaches adding dependency information to a list in column 2 lines 20-23:

If the dominant package has a dependent package not already installed, the method constructs a trailer script process and an action list. The action list has action entries identifying dependent packages not previously installed.

Also see Taylor column 5 lines 29-31:

If there is an action list, add module 112 adds the name of the dependent package to the action list.

This passage teaches that Taylor adds a package to a preexisting first list.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Taylor's teaching of adding dependency packages to a list with Stupek's first list. One of ordinary skill would have been motivated to install a multi-package distribution pack with package dependencies on a target system in a single installation operation (Taylor column 1 lines 58-60).

As per claim 3, the above rejection of claim 1 is incorporated. Stupek further discloses the use of an operating system with the computer system (column 1 line 17).

As per claim 4, the above rejection of claim 3 is incorporated. Stupek further discloses the use of a network with the computer system (column 1 line 13).

As per claim 5, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of keeping track of what software has been installed or uninstalled (column 6 lines 45-47).

As per claim 7, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of storing information relating to program updates in a file (column 6 lines 43-45).

As per claim 8, the above rejection of claim 1 is incorporated. Stupek further discloses the practice of updating software on the computer system (column 5 lines 48-63).

As per claim 9, Stupek discloses:

A system for maintaining software on a computer system (FIG. 1) comprising:

a maintenance application having a first list of third maintenance items wherein the first list comprises a list of maintenance items needed to be applied to said computer system (figure 1 reference 11 "Upgrade Advisor"; figure 1 reference 7 "Resource Upgrades", column 3 lines 31-43:

Upgrades to the network resources are provided to a server manager by a distribution medium...

Also column 3 line 57 – column 4 line 7:

When the upgrades 7 become available to the network (e.g., by inserting the CD-ROM into the server manager drive, or by logging into the on-line service), an upgrade advisor 11 in the upgrade device 10 automatically analyzes each network resource 3 currently on the server 1 to determine the availability and necessity of the corresponding upgrade 7. When the analysis is complete, the upgrade advisor 11 presents a report and/or graphical display to the user.

All other limitations have been addressed in the above rejection of claim 1.

As per claims 11-13, 15 and 16, the above rejection of claim 9 is incorporated.

All further limitations have been addressed in the above rejections of claims 3-5, 7, and 8, respectively.

As per claim 17, all limitations have been addressed in the above rejections of claims 1 and 9.

As per claim 18, Stupek discloses a computer program product (column 3 lines 31-33). Stupek further discloses a computer readable medium and program instruction means (column 11 line 9 – column 14 line 33). All further limitations have been addressed in the above rejection of claim 1.

In regard to claim 20, Stupek discloses: wherein the database is stored on a different medium than the maintenance application. See FIG. 1 elements 9 and 11, and column 3 lines 31-52.

16. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek et al as applied to claims 1 and 9, respectively, above, and further in view of "Y2K Compliance and the Distributed Enterprise" by Gowan et al.

As per claim 2, Stupek does not expressly disclose software maintenance on a mainframe.

However, in an analogous environment, Gowan et al. teaches the benefits of upgrading a mainframe computer system (page 68, paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Stupek's software maintenance system with Gowan's concept of upgrading a mainframe computer in order to facilitate a swift and automated upgrade process. This is desirable since mainframe computers serve a large number of users, and having a swift and automated upgrade process ensures the availability of correct and efficient software.

As per claim 10, all further limitations have been addressed in the above rejection of claim 2.

17. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek and Taylor as applied above to the rejections of claims 1 and 9, further in view of "IMS/ESA Sysplex Data Sharing: An Implementation Case Study" by Boyle et al. (hereinafter "Boyle").

As per claim 6, the above rejection of claim 1 is incorporated. Stupek further discloses the use of a database application through the use of the "server database" (column 4 lines 14-16). Stupek does not expressly disclose the use of IBM ServiceLink. However, in an analogous environment, Boyle teaches that ServiceLink can be used in software maintenance (top of page 32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Boyle's teaching of ServiceLink with Stupek's database. One of ordinary skill would have been motivated to provide early opportunity to review software maintenance issues (Boyle: 2nd paragraph of page 32).

In regard to claim 14, the above rejection of claim 9 is incorporated. All further limitations have been addressed in the above rejection of claim 6.

18. Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stupek and Taylor as applied to claim 1 above, further in view of IBM SMP/E as described on page 8 of the originally filed specification (hereinafter "SMP/E").

In regard to claim 19, the above rejection of claim 1 is incorporated. Stupek does not expressly disclose: recording what software has been taken off the computer system, and recording what software has been cloned. However, in an analogous environment, SMP/E teaches a software recording application that records what software has been taken off a computers system, and what software has been cloned. See page 8 lines 5-9:

One example of such a recording application is a program provided by IBM Corp. known as SMP/E. This program can record what software has been put on, track such software, record what software has been taken off, and record what software has been cloned, all on an 05/390 architecture system.

As described in the specification, SMP/E is a "known" application that provides these capabilities. While supporting documentation of the SMP/E application has not been previously supplied, this passage clearly describes its use in terms of prior art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the recording abilities of SMP/E with the Stupek's "MIB". One of ordinary skill would have been motivated to supply accurate information regarding available resources (see Stupek column 3 lines 28-30). All further limitations have been addressed in the above rejection of claim 1.

Conclusion

19. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571)272-3703. The examiner can normally be reached on T-F 6:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571)272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jdr